

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

Confirmation No.: Unknown

KWOK et al.

Group Art Unit: 3761

Cont. of Appln. No.: 09/230,491

Examiner: D. Erez

Filed: February 8, 2002

Title: NASAL MASK AND CUSHION THEREFOR

February 11, 2002

* * * * *

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

Before examination on the merits, please amend the above-identified application as follows:

IN THE SPECIFICATION:

At page 1, line 1, please insert the following new paragraph

--CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. Application No. 09/230,491, filed August 11, 1999, now allowed, the specification and drawings of which is incorporated herein by reference. Application No. 09/230,491 claims priority to Australian Provisional Patent Application No. PO1265, filed July 26, 1996, through PCT Application No. PCT/AU97/00450, filed July 16, 1997 (published as WO 98/04310 on 5 February 1998). This application contains subject matter related to U.S. Application No. 08/791,212, filed January 31, 1997, now U.S. Patent 6,112,746, incorporated by reference in its entirety, which also claims priority to Australian Provisional Patent Application No. PO1265, filed July 26, 1996.--

See the attached Appendix for the changes made to effect the above paragraph

IN THE CLAIMS:

Please cancel claim 1 without prejudice or disclaimer.

Please enter the following new claims 23-29:

23. (New) A nasal mask cushion to sealingly connect a mask to a wearer's face, the cushion comprising:

a substantially triangularly-shaped frame of resilient material having a rim to surround the wearer's nose;

a membrane also of resilient material, the membrane being relatively more flexible than the frame, and being of the same general shape as said rim and fixed to and extending away from the frame so as to have an outer surface spaced from the rim, a portion of said outer surface forming a face contacting seal portion; and

a nose-receiving cavity bounded by said frame and said membrane;

wherein said face contacting seal portion is generally coterminous with respect to said rim and is resiliently deformable towards the rim in use of the cushion.

24. (New) The nasal cushion as claimed in claim 23, wherein said membrane and said rim each has a co-located notch to accommodate the bridge of a nose.

25. (New) The nasal cushion as claimed in claim 24, wherein said membrane is shaped so that said seal portion, in use, contacts at least a wearer's nose.

26. (New) The nasal cushion as claimed in claim 24 , wherein said membrane and said rim are substantially saddle-shaped.

27. (New) The nasal cushion as claimed in claim 21, wherein said membrane is shaped so that said seal portion, in use, contacts at least a wearer's nose.

28. (New) The nasal cushion as claimed in claim 27, wherein said seal portion, in use, contacts the facial tissue around the sides and over the bridge of the nose, and between the base of the nose and the top lip.

29. (New) The nasal cushion as claimed in claim 23, wherein said rim and said seal portion are shaped to generally match facial contours of the facial tissue around the sides and over the bridge of the nose, and between the base of the nose and the top lip.

30. (New) The nasal cushion as claimed in claim 23, wherein only the membrane is adapted to contact the wearer's face in use.

31. (New) The nasal cushion as claimed in claim 23, wherein only a single seal is provided about the wearer's face in use.

32. (New) A nasal mask cushion assembly to sealingly connect a nasal mask to a wearer's face, the cushion assembly comprising:

a generally triangularly shaped frame of resilient material, the frame including an outer surface and a notch adapted to receive the bridge of the wearer's nose; and

a generally triangularly shaped membrane of resilient material, the membrane including an aperture adapted to receive the wearer's nose, an outer surface including a seal forming portion adapted to deform and form a seal over a portion of the wearer's face when the mask is in use, an inner surface opposing the outer surface of the frame, an edge defining the perimeter of the aperture, and a notch in a region of the membrane adapted to receive the bridge of the wearer's nose, wherein

the membrane is more flexible than the frame;

the aperture of the frame is larger than the aperture of the membrane; and

the edge of the membrane, in use, is spaced a distance from the frame in at least the region of the membrane adapted to receive the bridge of the wearer's nose.

33. (New) A nasal mask cushion assembly according to claim 32, wherein the frame and the membrane are formed in a single piece.

34. (New) A nasal mask cushion assembly to sealingly connect a nasal mask to a wearer's face, the cushion assembly comprising:

a generally triangularly shaped frame of resilient material, the frame including a first side adapted to contact a mask body of the nasal mask, a second side opposite the first side, an aperture extending from the first side to the second side, a rim on the second side extending around the perimeter of the aperture, and a notch in the rim in a region adapted to receive the bridge of the wearer's nose; and

a generally triangularly shaped membrane of resilient material, the membrane including an aperture adapted to receive the wearer's nose, an edge defining the perimeter of the aperture, a notch in a region adapted to receive the bridge of the wearer's nose, a first surface including a seal forming portion disposed around the perimeter of the aperture adapted to deform and form a seal over a portion of the wearer's face in a region between the base of the nose and the upper lip and around the sides and over the bridge of the wearer's nose when the mask is in use, a second surface opposite the first surface that surrounds and is spaced a first distance from the rim of the frame in at least the region adapted to receive the bridge of the wearer's nose when the mask is in use, wherein the membrane is more flexible than the frame.

35. (New) A nasal mask cushion assembly according to claim 34, wherein the frame and the membrane are formed in a single piece.

36. (New) A nasal mask cushion assembly to sealingly connect a nasal mask to a wearer's face, the cushion assembly comprising:

a generally triangularly shaped frame of resilient material, the frame including an inner surface, an outer surface, an aperture, and a notch in a region adapted to receive the bridge of the wearer's nose; and

a generally triangularly shaped membrane of resilient material, the membrane including an aperture adapted to receive the wearer's nose, an outer surface including a seal forming portion adapted to deform and form a seal over a portion of the wearer's face in a region between the base of the nose and the upper lip and around the sides and over the bridge of the wearer's nose when the mask is in use, an inner surface opposing the outer surface of the frame and spaced a first distance from the outer surface of the frame in at least the region of the frame adapted to receive the bridge of the wearer's nose when the mask is in use, an edge defining the perimeter of the aperture, and a notch in a region of the membrane adapted to receive the bridge of the wearer's nose, wherein

the membrane is more flexible than the frame;

the aperture of the frame is larger than the aperture of the membrane; and

the edge of the membrane is spaced a second distance from the frame, the second distance being variable.

37. (New) A nasal mask cushion assembly according to claim 36, wherein the frame and the membrane are formed in a single piece.

38. (New) A nasal mask cushion assembly to sealingly connect a nasal mask to a wearer's face, the cushion assembly comprising:

a generally triangularly shaped frame of resilient material, the frame including a first side adapted to contact a mask body of the nasal mask, a second side opposite the first side,

an aperture extending from the first side to the second side, and a notch in a region adapted to receive the bridge of the wearer's nose; and

a generally triangularly shaped membrane of resilient material, the membrane including an aperture adapted to receive the wearer's nose, an edge defining the perimeter of the aperture, a notch in a region adapted to receive the bridge of the wearer's nose, a first surface including a seal forming portion disposed around the perimeter of the aperture adapted to deform and form a seal over a portion of the wearer's face in a region between the base of the nose and the upper lip and around the sides and over the bridge of the wearer's nose when the mask is in use, a second surface opposite the first surface that surrounds and is spaced a first distance from the frame in at least the region adapted to receive the bridge of the wearer's nose when the mask is in use, wherein

the membrane is more flexible than the frame;

the aperture of the membrane is smaller than the aperture of the frame; and

the edge of the membrane is spaced a second distance from the frame, the second distance being variable.

39. (New) A nasal mask cushion assembly according to claim 38, wherein the frame and the membrane are formed in a single piece.

REMARKS

Claims 23-39 are pending. By this Preliminary Amendment, claim 1 has been cancelled and claims 23-39 have been added.

Prompt and favorable consideration on the merits is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached Appendix is captioned “Version with markings to show changes made”.

Respectfully submitted,

Pillsbury Winthrop LLP

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Enclosure: Appendix

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

At page 1, line 1, please insert the following new paragraph

--CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. Application No. 09/230,491, filed August 11, 1999, now allowed, the specification and drawings of which is incorporated herein by reference. Application No. 09/230,491 claims priority to Australian Provisional Patent Application No. PO1265, filed July 26, 1996, through PCT Application No. PCT/AU97/00450, filed July 16, 1997 (published as WO 98/04310 on 5 February 1998). This application contains subject matter related to U.S. Application No. 08/791,212, filed January 31, 1997, now U.S. Patent 6,112,746, incorporated by reference in its entirety, which also claims priority to Australian Provisional Patent Application No. PO1265, filed July 26, 1996.--

IN THE CLAIMS:

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New claims 23-39 have been added.

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TRANSMITTAL OF FORMAL DRAWINGS

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

Attached are (3) three sheets of formal drawings to be made of record in the above-captioned application.

Respectfully submitted,

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Enclosure: (3) Sheets of Formal Drawings



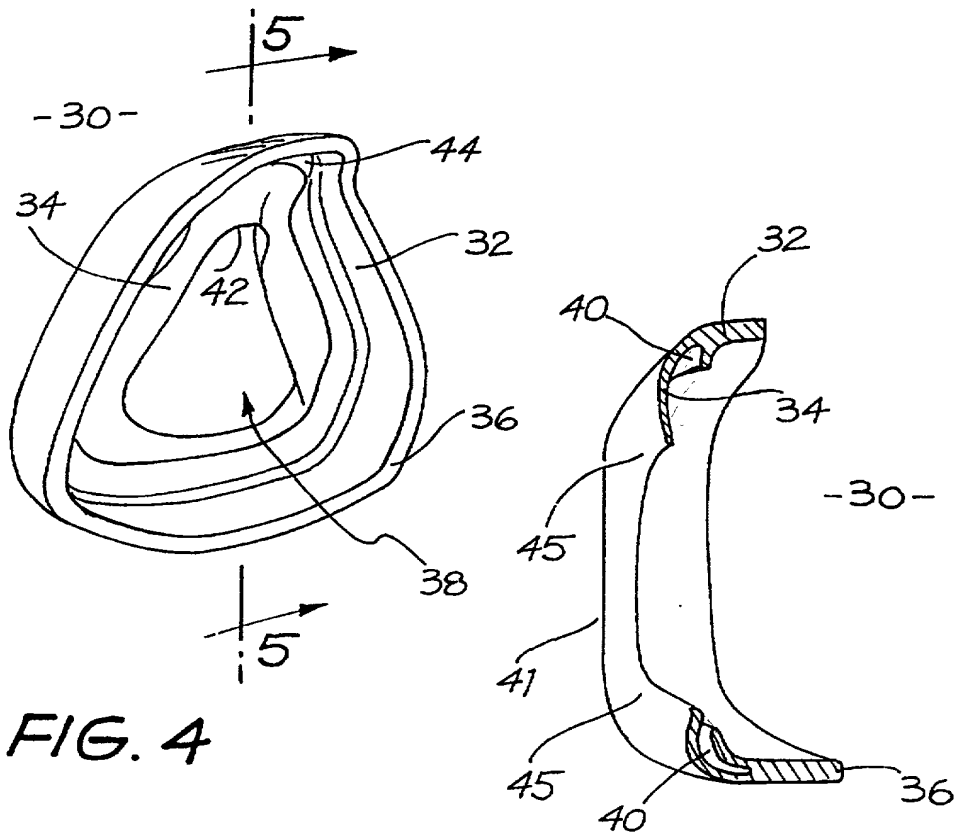


FIG. 4

FIG. 5

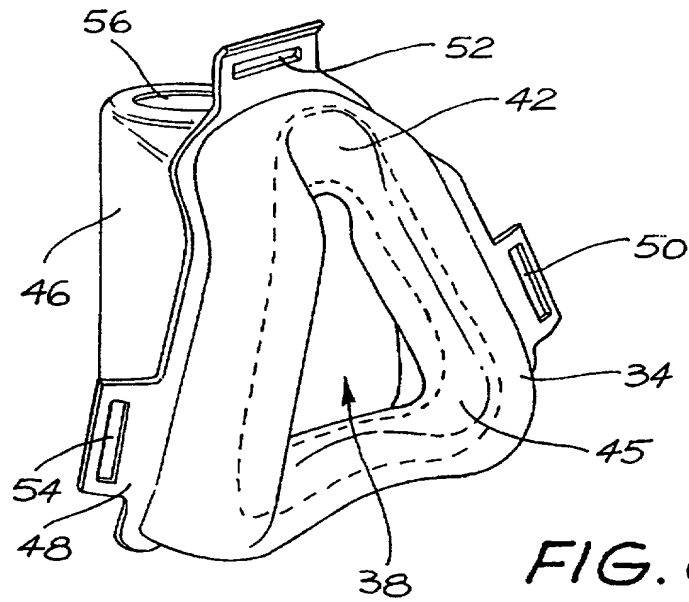


FIG. 6

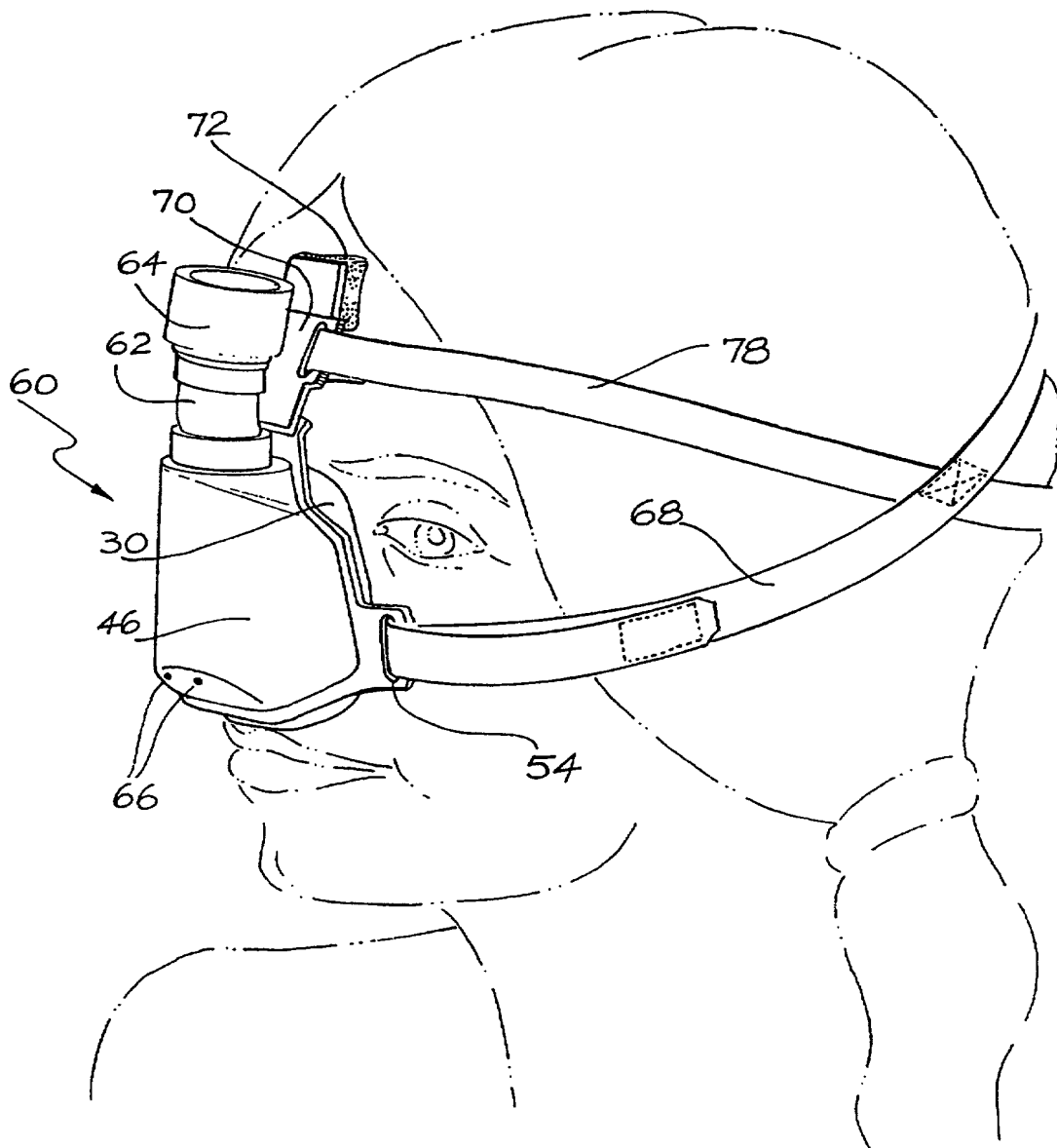


FIG. 7